

Memorandum



To : SAC, BOSTON (264C-NEW)

From : SSA [redacted] (C-5)

Subject: UNSUBS (S);
PLACEMENT OF MICHELANGELO
VIRUS ON LEADING EDGE
COMPUTERS;
CFA;
OO: BOSTON

Date 2/11/92

b6
b7C

On 2/1/92, I spoke with [redacted] LEADING EDGE COMPUTER CORPORATION, telephone number (508) 836-4800 regarding this matter. [redacted] indicated that about 500 microcomputers had been infested at the LEADING EDGE facility in Compton, California, prior to shipping for retail sale throughout the United States.

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On 2/7/92, SSA [redacted] Economic Crimes Unit, FBIHQ, indicated that this matter should be opened, with Boston as Office of Origin.

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b7C

Please coordinate interview of [redacted] with AUSA [redacted] [redacted] who holds an MS in Computer Science and will handle CF&A cases for USA, Boston.

JTR/mjm
(2) mym

0 JA
2/11/92
JP

264C-BS-62095-1

SEARCHED	INDEXED
SERIALIZED <u>28</u>	FILED <u>18</u>
FEB 1 1992	
FBI - BOSTON	

FILE: BS-0062095 (264C)

1A NO | DESCRIPTION

0001 | ORIGINAL NOTES

b6
b7C

(Title)

261C-BS-62095

(File No.)

1A-1
62095-**Universal File Case Number** 264C-BS-**Field Office Acquiring Evidence** _____**Serial # of Originating Document** _____**Date Received** _____**From** _____
(Name of Contributor)_____
(Address of Contributor)_____
By _____
(City and State)
(Name of Special Agent)To Be Returned Yes NoReceipt Given Yes NoGrand Jury Material - Disseminate Only Pursuant
to Rule 6 (e), Federal Rules of Criminal Procedure Yes No**Title:****Reference:** _____
(Communication Enclosing Material)**Description:** Original notes re interview of

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b6
b7C

transmit virus - one state to another -

E-mail message - one state to another -

~~Gov't computer~~ —

1. *What is the name of the author?*

Xenix -

b6
b7c

A hand-drawn diagram of a house. The house has a rectangular base and a smaller rectangular extension on the left side. A horizontal line extends from the top of the main rectangle. To the left of the house, there is a circle containing the number '1' and an asterisk (*) positioned below it. To the right of the house, the text '— marketing' is written in cursive.

hart
Englisch

~~7-00012~~

-Pomona

71 ⁴₆₂₉ - 8050 (4A/cf..)

— Qual.-Ctr. —

rumor that Gumpo friend -

Assoc. - Calif. b6
b7C

officers to and
who
had been
machined

1900 WYATT DR.
S. 8

Santa Clara, Calif. -
408 - 988 - 3832

Virus ~~prot~~: products -

A hand-drawn diagram of a horizontal beam. The beam is represented by a thick black line. At the left end, there is a vertical support represented by a thick vertical line, with a horizontal arrow pointing to the left indicating a reaction force. At the right end, there is another vertical support represented by a thick vertical line, with a horizontal arrow pointing to the right indicating a reaction force. A horizontal arrow points to the right from the center of the beam, representing a central load.

1st
to
detest
vis
,
April
91

Virus Info. Data Base
Santa Clara, Calif.

will know her address -

b6
b7C

Box -
Shipping records

(2)

LDI - CV.

Future Shop -
Vancouver

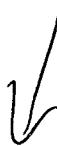
11/7/92 -

Rep. from customer
LDI, Customer -

one of their
IT Technicians ^{ADS} found virus
in computer →
that had been shipped
from Leading Edge

Compton
150 Carib St. ^{b6}
^{b7c}

Compton -



Sent sample to confirm
virus &
clean ~~the~~ other
computers in that S/m. -

Checked all systems in
Calif as to when started -

found more systems had been
infected

12/7 - 12/21/91

→ In Inventory - systems
determined

Only saw virus on
disks — that
were read from
outside source \leftrightarrow

[Redacted] - Landing Edge

went through all his letters.

✓

3 dress - 1 box

3 doses — another.
Box —

Looked into
2 e

Zeevix had no interface.
Custom System —

2. List of how many
quantities sent + dates -

3 Mailed to -

3 being held there. —

1

Checked dress — for vamps —

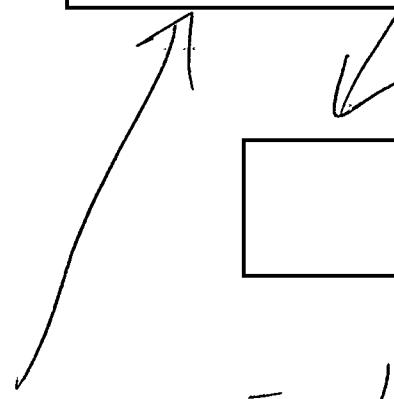
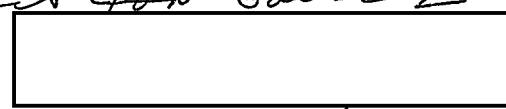
one sent back to
see nix -

2 cleaned + destroyed - BS.

Take all 3 -

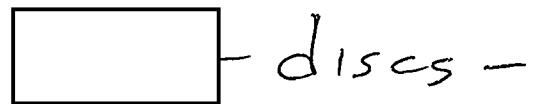
500 - 5000 →

Automation Sources



b6
b7c

Start w h, u -



Monday - back

U.S.S.S. - care opened -





U.S. Department of Justice

Federal Bureau of Investigation

Office of the Director

Washington, D.C. 20535

FBI Press Office
(202) 324-3691

Media Release
March 4, 1992

**STATEMENT BY FBI DIRECTOR SESSIONS CONCERNING
WHITE-COLLAR CRIME FRAUD ALERT ON COMPUTER VIRUSES**

FBI Director William S. Sessions made the following statement today regarding computer viruses and their potential impact on computer users.

"A computer virus is a program that attaches itself to other programs and has the ability to replicate itself. Typically hidden, a virus can damage or destroy information stored in a computer. Presently, there are over 1,000 known computer virus strains in existence with new strains surfacing daily.

Recent publicity regarding the 'Michelangelo Virus' has heightened the public's awareness of the existence of computer viruses and the potential damage they can cause. Viruses can exist in new commercial computer hardware, legitimate commercial software, and computer programs obtained by other means, such as electronic bulletin boards and disk swapping. The FBI urges computer operators to use appropriate security procedures to minimize the risk of a computer virus destroying information. Security procedures should include, at a minimum, routinely backing up sensitive or necessary data on a regular basis and, if possible, regularly scanning computer terminals for viruses using updated virus detecting software. If you detect a virus, consult a computer expert to obtain guidance on removing the virus from the infected equipment.

The FBI investigates violations of a number of Federal statutes which can apply, if computerized data is intentionally altered, stolen or destroyed on networks, in financial institutions, or in government computers. If you possess information indicating that Federal statutes concerning computer fraud and abuse may have been violated, please call your local FBI field office."

264C-BS-62095 -2

SEARCHED	INDEXED
SERIALIZED	FILED
MAR 06 1992	
FBI - BOSTON	

[Handwritten signature/initials over the stamp]

(Mount Clipping in Space Below)

(Indicate page, name of newspaper, city and state.)

Date: 2/18/92
Edition: BOSTON GLOBE
BUSINESS SEC., PG 1

Title: PLACEMENT OF
MICROCHIPS IN VINES
ON LEAD ING EDGE

Character: CFA
or
Classification:
Submitting Office: BOSTON

Indexing:

164C-BS-0062085

SEARCHED	INDEXED
SERIALIZED	FILED
MAR 3 - 1992	
FBI - BOSTON	

FBI/DOJ

264C-BS-62095-3



REUTERS PHOTO

mpeau, the quintessential '80s man who tried to build a life of debt, emerged from hiding yesterday to watch his dream. Shareholders and creditors approved a cashed-down property developer, Camdev Corp.

We don't know if they can be saved.

CRAIG CONRAD, *Leading Edge Products*

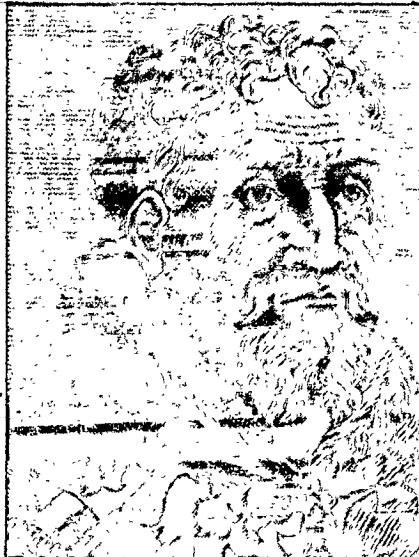
Leading Edge attacked by rogue virus

By Josh Hyatt
GLOBE STAFF

Up until now, depending on your frame of reference, Michelangelo is either a famous artist or a member of the Ninja Turtles. As of today, though, he may become better known as a deadly computer virus.

Leading Edge Products Inc., a Westborough computer maker, yesterday acknowledged that it had shipped 500 computers infected with the so-called "Michelangelo" virus, a rogue program that will destroy any files it encounters on March 6, the painter and sculptor's birthday.

So far, the company says, it has reached about 80 percent of consumers who bought personal computers over the two-week span in December during which the virus was spread. For that



MICHELANGELO
Can a virus be artful?

group, the company can supply a simple software antidote that halts the infection dead in its tracks.

For those who don't get the antidote in time, though, there isn't much hope. "We don't know if they can be

VIRUS, Page 66

Who qualifies?

If the bill becomes law, people who are currently receiving extended jobless benefits or who will begin receiving those benefits between the bill's enactment and June 13 will be eligible for an additional 13 weeks of benefits.

People in high-unemployment states such as Massachusetts would thus be eligible for a total of 59 weeks of benefits: 26 weeks from the regular program, 20 additional weeks from the extension signed into law just before Thanksgiving and an additional 13 weeks from the new extension.

Fidelity funds lose another top executive

By Kimberly Blanton
GLOBE STAFF

A top-level Fidelity Investments executive and a driving force in the firm's explosive growth is resigning to join Credit Suisse First Boston, an international investment bank.

John J. Cook Jr. will become chairman of First Boston Asset Management and Credit Suisse First Boston Investment Management. The Boston firms are investment management units of Credit Suisse First Boston, based in New York.

Cook's resignation as president of Fidelity Investments Institutional Group,

FIDELITY, Page 66

Consumer confidence

Seasonally adjusted index of consumer expectations about economy's future

103.5 = 100

140

120

Index at 50.4

Computer virus attacks Leading Edge

■ VIRUS

Continued from Page 65

saved," admitted Craig Conrad, a company spokesman. Conrad further vowed to "find out how the virus got into our building."

But industry specialists gave the company long odds on actually pinpointing the mean-spirited programmer who planted it. "No virus writer has ever been collared to date," noted John McAfee, president of a firm that specializes in detecting and removing computer viruses. "It's a nearly impossible task. It's like trying to trace the origins of the common cold."

This virus doesn't quite go back as far. But McAfee's own research reveals that Michelangelo was first identified last March, and that it originated either in Sweden or The Netherlands. He says it is one of 1,100 or so viruses to which computers are now susceptible.

As with a biological virus, a computer virus is a self-replicating code that infects everything it touches. Typically, it spreads from one computer to another through the transfer of infected floppy diskettes.

While each virus reflects the quirky agenda of its author, they almost always do damage. Late last

year, Novell Inc., a leading maker of networking equipment, discovered it had shipped products infected with a virus called "Stoned." Before destroying files, that virus filled computer screens with a demand for the legalization of marijuana.

In having a virus named after him, Michelangelo joins such former honorees as Father Christmas, Darth Vader, Frere Jacques and — of course — Saddam.

Conrad said that Leading Edge notified dealers of the virus shortly after one of the company's distributors discovered it by accident in mid-December. That reseller was routinely scanning the equipment with software that pinpoints viruses. After finding the Michelangelo code, the customer contacted the company's service department.

Leading Edge then set about identifying the serial numbers of machines that were sold with similar software attached. Conrad says the company determined that up to 500 computers could be infected, and that the virus originated in equipment that was provided by a subcontractor to its assembly plant in Compton, Calif. Beyond that, Conrad said, "we can't get into too much detail."

The company notified dealers with a Jan. 10 letter, sending them diskettes that consumers can use to detect and remove the virus within two minutes. "They handled it professionally," said Gordon Hoffstein, president of PC's Compleat, a computer reseller in Marlborough.

But not everyone praises the company's behavior. "It's astonishing that the internal quality control of some of the companies on which we rely is as loose as this," declared Richard tenEyck, who serves on the board of the Boston Computer Society. "Their internal controls should be reviewed."

Indeed, Conrad said the company will now take extra precautions, and may even begin bundling an antidote program with its computers. He pointed out that Michelangelo only infected 10 percent of the computers Leading Edge shipped in December.

But viruses of all kinds are on the upswing, one distributor said. "With the proliferation of modems and networks and all kinds of shared software, I'm suddenly seeing them," said Peter Tedeschi, president of Computer Concepts, a retail outlet in Hanover. "Until last year, I had never encountered one."

dom and also race trying to expand.

"The world is Cook. "If we're a class investor and firm] the size of the worldwide and domous."

From his Boston oversee investing here and overseas, the Far East. He w Hennessy, chairman First Boston.

Cook said he's "on the best of te happy up until my ignation is effectiv week.

Fidelity said th mediatly to repl ported to J. Gar dent of Fidelity I search Co. The fir who were under port to Burke (Ned) Johnson, said Paula Slotk

House OK's \$ jobless

■ JOBLESS

Continued from

After four m congressional D the recession ear ularity, he finally sure. Unlike the the extra benefi some tax collecti er changes.

This year

proposed payir coverage by ha emergency, whi ernment borrov

Bush balke plaining that it deficits that ar cords.

Pension pair face fraud, larceny charges

■ QUIRK

Continued from Page 65

amount of state and federal taxes withheld, while overreporting her own state and federal withholdings by the same amount, Harshbarger said.

The scheme, which involved false W-2s issued to nine employees in one year, and three in another, netted Quirk \$6,500, according to state officials.

raigned Feb. 13 at Suffolk Superior Court.

While Harshbarger spokesman Tom Samoluk said the charges resulted from an audit of the investment board last spring, Cooley said the investigation was prompted by vindictive board members.

"This was an operation run by the PRIM board to try to destroy [the Quirks], not because they are corrupt, but because they resisted

\$3 billion in public employee pension money.

At the time of his ouster, Quirk was under fire for accepting \$25,000 in cash and stock options from take-over specialist Carl Icahn to help mount a campaign against a company that Icahn wanted to acquire.

He also angered former Gov. Dukakis by ringing up hefty travel expenses at a time when the rest of the administration was taking across-

FEDERAL BUREAU OF INVESTIGATION

Date of transcription 3/12/92

[redacted] Product Development, LEADING EDGE PRODUCTS, INCORPORATED (LE), Westborough, Massachusetts, was interviewed with the assistance of [redacted] Assistant United States Attorney, District of Massachusetts. [redacted] furnished the following information:

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On January 7, 1992, one of LE's customers, L.D.I., located in Cleveland, Ohio, reported to [redacted] that the Michel-Angelo virus had been detected in a computer shipped directly from LE, 150 Carob Street, Compton, California.

Subsequent investigation by LE in Compton, California, discovered three diskettes in one box, and three diskettes in another, all infected with the Michel-Angelo virus and awaiting shipment from the LE, Compton warehouse. The diskettes were received between December 7-21, 1991, from ZENIX, Erie Street, Pomona, California. Three of the diskettes were forwarded to [redacted] in Massachusetts. Two of the diskettes were cleaned and destroyed in the LE, Westborough, Massachusetts facility. One diskette was sent back to ZENIX. [redacted] LE, Compton, California, discovered the six infected diskettes and retained three under lock and key. Three diskettes were shipped to LE, in Massachusetts.

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Investigation on 3/4/92 at Westborough, Massachusetts File # 264C-BS-62095 -4

by USA ROBERT A. KEANE/cs

Date dictated 3/5/92

FBI

TRANSMIT VIA:

Teletype
 Facsimile

PRECEDENCE

Immediate
 Priority
 Routine

CLASSIFICATION:

TOP SECRET
 SECRET
 CONFIDENTIAL
 UNCLAS EFTO
 UNCLAS

Date: 3/5/92

C6

FBI FBI BOSTON (264C-62095)

FBI LOS ANGELES/PRIORITY/

FBI

UNCLAS

GITH: //3090//

SUBJECT: UNSUB(S); PLACEMENT OF MICHELANGELO VIRUS ON LEADING
 EDGE (LE) COMPUTERS; CFA; OO: BOSTON.

ON 3/4/92, CONTACT WAS MADE WITH [REDACTED]

b6
b7C

PRODUCT DEVELOPMENT, LE PRODUCTS, INC., WESTBOROUGH, MA. [REDACTED]

ADVISED A CLEVELAND, OHIO, LE CUSTOMER DISCOVERED ON 1/7/92 THE
 MICHELANGELO VIRUS IN A PRODUCT RECEIVED DIRECTLY FROM LE,
 COMPTON, CA.

SUBSEQUENT INVESTIGATION BY LE IN COMPTON, CA, DISCOVERED
 THREE DISKETTES IN ONE BOX AND THREE DISKETTES IN ANOTHER. ALL
 WERE INFECTED WITH THE MICHELANGELO VIRUS AND AWAITING SHIPMENT

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17

18

19

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MMOO/W, 065

Approved: _____

Transmitted

(Number) (Time)

264C-BS-62095-5

SEARCHED INDEXED
SERIALIZED FILED

APR 01 1992

Per _____

Disk
WJM/C5Keane JK

FBI

TRANSMIT VIA:

- Teletype
- Facsimile
- _____

PRECEDENCE

- Immediate
- Priority
- Routine

CLASSIFICATION:

- ~~TOP SECRET~~
- ~~SECRET~~
- ~~CONFIDENTIAL~~
- ~~UNCLAS EFTO~~
- ~~UNCLAS~~

Date: _____

FROM THE COMPTON WAREHOUSE. LE DETERMINED THE DISKETTES WERE RECEIVED BETWEEN 12/7-21/91 FROM XENIX, ERIE STREET, POMONA, CA, TELEPHONE NUMBER (714) 629-8050. THREE DISKETTES WERE FORWARDED TO [REDACTED] IN MASSACHUSETTS. TWO OF THESE WERE CLEANED AND DESTROYED IN THE MASSACHUSETTS FACILITY. ONE WAS SENT BACK TO XENIX. [REDACTED] LE, COMPTON, CA, DISCOVERED THE SIX INFECTED DISKS AND HAS RETAINED THE REMAINING THREE DISKETTES UNDER LOCK AND KEY IN HIS DESK IN CA. [REDACTED] WILL BE AVAILABLE 3/9/92.

AUSA [REDACTED] DISTRICT OF MASSACHUSETTS, ADVISED HE WOULD ENTERTAIN PROSECUTION SHOULD VENUE AND VIOLATION OF CFA STATUTE BE ESTABLISHED.

LEADS:

LA AT COMPTON, CA:

CONTACT [REDACTED] 150 CAROB STREET, COMPTON, CA, AND OBTAIN

THE THREE DISKETTES CONTAINING THE MICHELANGELO VIRUS AND FORWARD TO BOSTON DIVISION. IT IS NOTED LE IS SUBSIDIARY OF AUTOMATION SOURCES AS LOCATED AT SAME ADDRESS, AND PRIOR TO

CONTACT WITH [REDACTED] IT IS RECOMMENDED THAT [REDACTED]

AS FIRST BE CONTACTED.

LA AT POMONA, CA:

Approved: _____

Transmitted

(Number) (Time)

Per

b6
b7Cb6
b7C

FBI

TRANSMIT VIA:

- Teletype
- Facsimile
- _____

PRECEDENCE

- Immediate
- Priority
- Routine

CLASSIFICATION:

- TOP SECRET
- SECRET
- CONFIDENTIAL
- UNCLAS EFTO
- UNCLAS

Date: _____

1 CONTACT [REDACTED] MARKETING, XENIX, ERIE STREET,
 POMONA, CA, TELEPHONE (714) 629-8050 AND DETERMINE WHERE AND WHEN
 MICHELANGELO VIRUS DETERMINED BY XENIX.

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b7C

BT

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Approved: _____

Transmited

(Number) (Time)

Per _____

Memorandum



To : SAC, BOSTON (264C-BS-62095) (C) Date 4/9/92

From : SA ROBERT A. KEANE (C-5)

Subject: UNSUBS;
PLACEMENT OF MICHELANGELO VIRUS
ON LEADING EDGE COMPUTERS;
CFA;
OO:BOSTON

Re FD-302 with [redacted] 3/4/92, at Westborough,
Massachusetts.

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b7c

Investigation in this matter was initiated with the report of a local Westborough, Massachusetts company that indicated the company shipped 500 computers infected with the "MICHELANGELO" virus.

Contact was made with AUSA [redacted] District of Massachusetts, who advised he would entertain Federal prosecution should Federal jurisdiction and venue be established in the State of Massachusetts.

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b7c

Investigation at LEADING EDGE computer company, Westborough, Massachusetts, revealed no evidence of a Federal violation.

This matter was kept pending throughout March 1992, in the event a report indicating a violation of a Federal statute occurred, particularly over 3/6/92, the anniversary of MICHELANGELO's birthday. Apparently, the extensive publicity given by the media stimulated individuals and companies to institute safeguards to prevent damage by the "MICHELANGELO" virus, ~~as~~ damage was not as extensive as originally anticipated.

To date, there has been no report of computer abuse meeting Federal statutory requirements, and it is recommended this matter receive no further investigation and be closed administratively.

1-Boston
RAK:lrr

close-4
6/1

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264C-BS-62095-6

SEARCHED	INDEXED
SERIALIZED <i>18</i>	FILED <i>CS</i>
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FBI - BOSTON	

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